

LYNDON B. JOHNSON SPACE CENTER
HOUSTON, TEXAS

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION
(JOFOC)

1. Introduction

The Engineering Directorate's Energy System Division (ESD) at the Johnson Space Center (JSC) provides human-rated, flight certified pyrotechnic devices for the Space Shuttle and other Agency-wide Programs. The ESD has been assigned responsibility for logistics management, manufacture, and certification of these units. This requires the ESD to procure hardware on a continuous basis from a limited number of vendors in the pyrotechnic community.

2. The nature and/or description of the action being approved

This justification provides the rationale for contracting by other than full and open competition for the Delta-Qualification of NASA Standard Initiator-3 (NSI-3) from Hi-Shear Technology Corporation. The NSI-3 is a derivative of the currently human-rated NSI-1. The NSI is a consumable pyrotechnic device used by the Space Shuttle, Orion and other NASA Programs/Projects. The Delta-Qualification effort will redesign the mating portion of the current NSI to accommodate a new family of electrical connectors, while keeping all other aspects of the design and performance unchanged.

3. Description of the supplies or services required, including an estimated value

The functional elements to be performed on this contract are the redesign of the NSI-1, generation of required documentation, manufacture and Delta-Qualification testing of 164 NSI-3s, and the delivery of a Qualification Test Report.

Estimated cost for all deliverables is \$250,000.

The proposed period of performance is March 1, 2011 through March 31, 2012.

4. Statutory authority permitting other than full and open competition

The statutory authority for this procurement is "Only one responsible source and no other supplies or services will satisfy agency requirements," pursuant to 10 U.S.C. 2304(c)(3), and implemented by FAR 6.302-1.

5. Demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires use of the authority cited

The statutory authority permitting other than full and open competition is 10 U.S.C. 2304(c)(3). As contemplated by the provisions of FAR 6.302-1, which states, "Only one responsible source and no other supplies or services will satisfy agency requirements". Hi-Shear is currently the only qualified vendor to produce the NSI. As such, Hi-Shear is solely in the position to conduct the redesign and Delta

qualification effort.

6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable

As Hi-Shear is the only qualified source to produce the NSI, no specific efforts were made to solicit proposals from alternate sources.

7. Determination by the Contracting Officer that the anticipated cost to the Government will be fair and reasonable

The anticipated cost to the Government is considered fair and reasonable when compared to the contracted cost of similar hardware. The cost per unit of the Solid Rocket Motor (SRM) Ignition Initiator (SII), under NASA contract NNJ07HA91C, was \$660 per unit for a pre-established design. The estimated per unit cost of the NSI-3 is roughly \$1000 per unit which also factors in the redesign and retooling costs.

8. Description of the market survey conducted, and the results, or a statement of the reasons a market survey was not conducted

A market survey was not conducted for this procurement since Hi-Shear is the only viable source for the NSI.

9. Other facts supporting the use of other than full and open competition:

None.

10. The actions the Agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required:

Barriers to competition for procuring similar hardware will be removed upon completion of the contract NNJ10B04C, with the Universal Propulsion Company (UPCO), to re-qualify for manufacturing the NSI-1 thereby creating a second source for the device.

Title of Procurement: Ground Test SII Procurement

Technical Officer: I certify that the supporting data presented in this justification are accurate and complete.

Todd Hinkel 3/24/2011
Todd Hinkel (Date)
Subsystem Manager, Orbiter Pyrotechnics
Energy Conversion Systems Branch / EP3

Contracting Officer: I hereby determine that the anticipated cost to the Government will be fair and reasonable and certify that this justification is accurate and complete to the best of my knowledge and belief.

Cynthia Maclean 2/1/11
Contracting Officer (Date)
Projects Procurement Office